

AMENDMENTS TO THE SPECIFICATION

IN THE SPECIFICATION:

Please replace the paragraph [0002] with the following rewritten paragraph.

As known in the art, a solid-state image sensor of the type is available which actualizes a broader dynamic range for using a primary and a secondary photosensitive cell, which are different in optical aperture area, i.e. photosensitivity, from each other. Because the optical aperture area, or opening region, of the primary photosensitive cells is broader, its sensitivity is heightened, and, however, the primary photosensitive cell cannot identify the level of the incident light exceeding a certain intensity level. On the other hand, because the opening region of the secondary photosensitive cell is smaller, its sensitivity is merely lowered, and, however, the secondary photosensitive cell, which becomes saturated more difficult than does not become saturated as easily as the primary photosensitive cell, can more suitably detect the quantity of the incident light. Moreover, if the output signals of the couple of photosensitive cells are mixed with each other, pixel by pixel, an image signal having broader dynamic range is attained for each of photo-sensors.

Please replace the paragraph [0003] with the following rewritten paragraph.

Generally, the image signals outputted from the photo-sensors of the solid-state image sensor may involve shading to be irregular in quantity of light incident to the respective photo-sensors due to various causes. For example, in the image sensor type applied to imaging apparatus such as a digital camera, each of the photo-sensors has its own microlens arrayed to cause the incident light to converge so that the optical opening ratio of their photosensitive cells is essentially increased. However, the quantity of light incident to the respective photo-sensors is ~~varied in dependence~~ varies depending upon the incident angle of the light. More specifically, in the vicinity of the edge of a photosensitive array of the image sensor, the light incident to the photo-sensors is often inclined and the direction of the inclination is one-sided specifically to the edge, so that the quantity of the incident light is poorer than one incident to the photo-sensors located near the center of the frame. Consequently, in the vicinity of the edge of a picture picked up, the luminance of produced signals is poorer, thus resulting in shading. It is therefore a common practice with a digital camera of the type described above to use, e.g. digital processing and a memory to correct image signals involving shading, thereby simplifying a shading correcting circuit.

Please replace the paragraph [0009] with the following rewritten paragraph.

As stated above, in the photosensitive array 18 of the solid-state image sensor 10, reduction in sensitivity of the photo-sensors is apt to occur particularly in the pixel positions where the incident light is inclined, thus involving the shading on the picture picked up. ~~In dependence upon~~ Depending on the incident angle of the luminous flux, the convergence ratio of the photosensitive cells 22 and 24 varies extensively, and therefore, the profile of shading may be varied.

Please replace the paragraph [0020] with the following rewritten paragraph.

The photosensitive array 18 has its light incident side covered with the light shielding member 26 ~~except-except for part-parts~~ corresponding to the photo-sensors 12. Each photo-sensor 12 catches the incident light via the optical through region, or the opening region, formed to be enclosed by the light shielding member 26 to be illuminated with the filtered light. In the illustrative embodiment, as shown in FIG. 2, each photo-sensor 12 has the opening region to illuminate both the primary photosensitive cell 22 and the

secondary photosensitive cell 24. In the opening region, the entire, opened area is photosensitive. The sensitivity of ~~the each~~ photosensitive ~~areas-area~~ ~~differ in dependent~~ depend on the size of opened area ~~from each other~~, and therefore, if the opening regions of the photosensitive areas differing in size from each other are illuminated with the incident light of the identical quantity to each other, then the photoelectric transduction efficiencies of the opening regions ~~differs~~ differ from each other.

Please replace the paragraph [0027] with the following rewritten paragraph.

As stated above, in each photo-sensor 12 of the photosensitive array 18 of the solid-state image sensor 10 of the present invention, if the secondary photosensitive cell 24 is arranged at one side of the primary photosensitive cell 22, the microlens 52 is formed to shift its optical center to the side of the secondary photosensitive cell 24 of the photo-sensor 12 so that the convergence ratios of the primary photosensitive cell 22 and the secondary photosensitive cell 24 are increased. In that case, the microlenses 52 may be arranged in such a fashion that the photo-sensors 12 nearer to the edge of the photosensitive array 18 have the microlenses 52 with the center thereof shifted to the further extent. In addition, the microlenses 52 may also be arranged in

such a fashion that the photo-sensors 12 which are located nearer to the center of the photosensitive array 18 ~~or~~ have the secondary photosensitive cell 24 thereof shifted toward the edge side on the photosensitive array 18 with respect to the primary photosensitive cell 22 have the microlenses 52 thereof less shifted. In the illustrative embodiment, the photo-sensors 12 located at the positions otherwise involving a poorer convergence ratio thus have the microlenses 52 shifted nearer the center of the photosensitive array 18 to increase the convergence ratio.